Amend the paragraph starting on line 5 as follows:

The invention relates to an apparatus and a method for injection-compression molding with a mold and a drive moving the mold. The apparatus and method are used for producing molded parts, in particular plastic molded parts.

2. Description of the prior art

Page 2, after line 35 insert

SUMMARY OF THE INVENTION

Page 3, please amend the paragraph starting on line 3, as follows:

According to the invention, the object of the present invention is met by an apparatus for injection-compression molding of a molded part having a mold with first and second plates in which opposing end faces of the plates define a first negative form of the molded part to be formed and a threaded screw drive assembly is operatively connected to one of the first and second plates for positioning the one of the first and second plates. The threaded screw drive assembly includes a threaded screw drive, a gear mechanism, and a controlled drive operatively connected to the threaded screw drive via the gear mechanism for positioning the one of the first and second plates.

The object of the present invention is also met by a method for injection-compression molding a molded part including the steps of moving a plate of the mod for compressing the molding composition via a threaded screw drive assembly and controlling the movement via one of a movement program and in dependence on a process parameter.

Page 6 after line 37 insert

A5

BRIEF DESCRIPTION OF THE DRAWINGS

Amend the paragraph starting on line 38 of page 6, as follows:

The drawing is longitudinal sectional view showing a mold with a threaded screw drive and a fixedly arranged spindle nut according to an embodiment of the present invention.

A6

Amend the paragraph starting on line 4 of page 7, as follows:

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

The apparatus for injection-compression molding comprises a mold 1which has two plates 2, 2'. Machined in the plate 2 on opposing end faces 3, 3' there is a first negative form 4 of the molded part to be produced. Arranged in the plate 2' is a mold insert 5, in which there is machined a second negative form 4' on its side facing the plate 2. The opposite side of the mold insert 5 is connected to a threaded spindle 6 of a threaded screw drive assembly 7. The threaded spindle 6 is mounted in the plate 2' and another plate 9 by antifriction guideways 8 in such a way that it is freely movable. A spindle nut 10 is arranged rotatably in a further plate 11 of the mold 1 for driving the threaded spindle 6. The spindle nut 10 is driven via a planetary gear mechanism 12 by an electric motor 13. The rotational speed and direction of rotation of the electric motor 13 are prescribed by a control 14.

A7

Further threaded screw drive assemblies 7a and 7b may be operatively connected to plates 2 and 2' as shown in the drawing for controlling the positions of plates 2 and 2'. Furthermore, a threaded screw driver 7c is also connected to plate 2 such that accurate replication may be achieved for large molded parts. The threaded screw drive assembly 7c includes a thread spindle 6c and a spindle nut 10c connected to plate 2. Accordingly, the plate 2 moves with the spindle nut 10c as the spindle nut traverses the threaded spindle 6c. In any of the threaded screw drive assemblies 7, 7a, 7b, 7c, either the threaded spindle or the spindle nut may be connected to the part to be moved, i.e., plate 2, plate 2', or mold insert 5.

For producing a molded part, the plate 2 moves toward the plate 2', so that the mold 1 is closed, with the mold insert 5 entering the first negative form 4 of the plate 2. This position of the mold insert 5 corresponds to the opening gap. A precisely defined amount of molding composition is then injected into the cavity 16 formed by the first negative form 4 and the mold insert 5 via a hot-runner nozzle 15 arranged in the plate 2. In order that the molding composition does not cool down excessively as a result of thermal conduction, heating elements 17 for controlling the temperature of the plates 2, 2' are arranged in the plates 2, 2'. After the injection, a gate 18 in the hot-runner nozzle 15 is closed by a gate needle 19. After that, the threaded spindle 6 is moved to the right by means of the spindle nut 10 to the extent that the mold insert 5 is positioned at a defined distance - the compression gap - from the first negative form 4 of the plate 2. With this reduction in volume of the cavity 16, the injected molding composition is subjected to pressure, so that the molding composition completely fills the cavity 16. The positioning of the plate 2 in this case does not take place uniformly, but is

controlled by the control 14. The power consumption of the electric motor 13 is used as a control variable. For this purpose, the power consumption is measured. With increasing internal mold pressure, the power consumption of the electric motor 13 increases. If the measured value is less than the prescribed value, the plate 2 is moved by 1 μm in the direction of the plate 2'. After that, the power consumption is measured again and compared with the setpoint value. As long as the measured value lies below the setpoint value, the plate 2 is moved step by step. If the measured value is greater than the setpoint value, the electric motor 13 is stopped. After a certain time, the plate 2 is moved again in the direction of the plate 2' and as this happens the power consumption is measured again. These steps are repeated until the molding composition has solidified. After solidifying of the molding composition, the mold 1 is opened at its mold parting plane between the plates 2, 2' and the finished molded part is ejected by an ejector 20.

In the Claims:

Please delete claims 1-16 and add new claims 17-32

17. An apparatus for injection-compression molding of a molded part, comprising:

a mold including first and second plates having opposing end faces defining a mold parting plane for opening and closing the mold, wherein said opposing end faces have a first negative form of the molded part to be produced and a gate through which a molding composition is introducible; and